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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,317	10/01/2003	Min Liu	MSI-1630US	6512

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EXAMINER

BLACKMAN, ANTHONY J

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/676,317

Applicant(s)

LIU ET AL.

Examiner

ANTHONY J BLACKMAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-39 is/are pending in the application.
- 4a) Of the above claim(s) 1-29 and 40-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-29 and 40-54 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16, drawn to a method of validating a color in a media environment including mapping component values of a selected color, classified in class 345, subclass 427.
 - II. Claims 17-29, drawn to a color model means converting selected color values to a target space, classified in class 345, subclass 604.
 - III. Claims 30-39, drawn to a graphical user interface color palette converting a selected color to a standardized reference color system and then converted to a receiver color coordinate system.
 - IV. Claims 40-54, drawn to a method of validating a color in a media environment including a user interface to receive a selection of a color in first color space.

The inventions are distinct, each from the other because of the following reasons:

Inventions I, II, III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as a method of validating a color in a media environment including mapping component values of a selected color; invention II has separate utility such as a color model means converting selected color

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values to a target space; invention III has separate utility such as a graphical user interface color palette converting a selected color to a standardized reference color system and then converted to a receiver color coordinate system; and invention IV has separate utility such as a method of validating a color in a media environment including a user interface to receive a selection of a color in first color space. See MPEP § 806.05(d). During a telephone conversation with Kayla Brant, Reg. No. 46,576, on 12/14/04 a provisional election was made without traverse to prosecute the invention of Group III, claims 30-39. Applicant has chosen to submit divisional applications for Groups I, II and IV at a later date. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Claim Rejections - 35 USC § 112

2. Claims 35-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, each claim discloses the following claim limitation, "...if one of the converted component values exceed a range of [0,1]" is not clearly stated. What are the units of the range of [0,1] ? Does the range include only zero and one, does the range include the values between zero and one, does the range

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include values less than zero and one and greater than zero and one? Applicant must provide greater detail for "[0,1]". Claims 35-38 will be evaluated as best understood.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 30-32 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by TURPIN et al, US Patent Application Publication, Pub. No. 2003/0174882.

5. As per claim 30, examiner interprets TURPIN et al to disclose A computer-accessible medium having one or more instructions that are executable by one or more processors, the one or more instructions causing the one or more *processors* (see *section 0073 disclosing a processor means as claimed disclosing at least one processor as claimed*) to:

detect a color selected from a graphic user interface (GUI) color palette (see *figure 13 and sections 0117-119 discloses a selectable color palette*);

normalize component values of the selected color in accordance with the number of bits-per-channel (*figure 18b discloses normalizing each color channel and binary strings (comprised of 10-bits)- see section 0131*);

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convert the normalized component values of the selected color in accordance with the normalized component values to corresponding component values in a standardized reference color coordinate system (section 0126 discloses a color code 34 (*comprises color space values or spectral frequency values*) *corresponding to the desired color 32 and section 0127 – provides “conversion of color space values... for a color...within one or more various color spaces into one standardized value”*),

and convert the component values in the standardized reference color coordinate system to corresponding component values in a receiver color coordinate system (see *section 0064- the receiving color coordinate system is represented to be a color output device as disclosed in section 0064 and section 0074 also discloses peripheral output devices*).

6. As per claim 31, TURPIN et al meet limitations of claim 30, including, wherein the GUI color palette depicts a plane of a multi-dimensional color space predicated upon a dominant color (the dominant color represents the selected color claimed in claim 30 until applicant further defines, in claim language, the definition of dominant color) selection (*see section 0105 disclosing one, two, and three dimensional features*).

7. As per claim 32, TURPIN et al meet limitations of claim 30, including, GUI color palette depicts a rotatable 3-D rendering of an X-dimensional ($X \geq 6$) color space predicated upon a dominant color (the dominant color represents the selected color claimed in claim 30 until applicant further defines, in claim language, the definition of dominant color) selection (*see sections 0113 and 0114 disclosing rotation means*).

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8. As per claim 39, TURPIN et al meet limitations of claim 30, including, wherein the standardized reference color coordinate system is a CIE XYZ system (see section 0233).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over TURPIN et al, US Patent Application Publication, Pub. No. 2003/0174882, in view of BERETTA, United States Statutory Invention Registration, Reg. No. H1506.

11. As per claim 33, TURPIN et al meet limitations of claim 30, however, TURPIN et al, does not expressly teach

wherein to normalize the component values of the detected color is to gamma-correct the component values, even though section 0064 of TURPIN et al teach color conversion means for televisions (i.e., gamma-correction), there is no express teaching of gamma-correction. BERETTA, on the other hand teach wherein to normalize the component values of the detected color is to gamma-correct the component values (figure 20, element 218, column 34, lines 7-14). It would have been obvious to one skilled in the art at the time of the invention to utilize a color display and reproductive systems using graphical and interactive user interface for assessing and modifying

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palettes of colors produced on such systems (column 1, lines 5-9) of BERETTA to modify the method of standardizing colors from a color code 34 over a network distribution system providing consumers with the means to choose or select desired colored products using a standardized color code 34 processing of TURPIN et al (please see sections 0006-0007 and figures 1-2), because the teaching of BERETTA "...provides a facility for the user to manually control how a color will be reproduced in a given device gamut, on one or more output devices column 6, lines 1-14, please note lines 12-14 and see figure 3, element 10 and figure 17). Therefore, improving the consumers ability to determine color selection. Accordingly, it would have been obvious for BERETTA to modify TURPIN et al.

12. As per claim 34, TURPIN et al meet limitations of claim 30, however, does not expressly teach, wherein to convert the component values in the standardized reference color coordinate system to corresponding component values in the receiver color coordinate system further is to gamma-correct the converted component values in the standardized reference color coordinate system, even though section 0064 of TURPIN et al teach color conversion means for televisions (i.e., gamma-correction) and even tough TURPIN et al discloses a standardized color code 34 (introduced in sections 0063-0064), there is no express teaching of gamma-correction. BERETTA teaches wherein to convert the component values in the standardized reference color coordinate system to corresponding component values in the receiver color coordinate system further is to gamma-correct the converted component values in the standardized reference color coordinate system (figure 20, element 218, column 34, lines 7-14).

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It would have been obvious to one skilled in the art at the time of the invention to utilize a color display and reproductive systems using graphical and interactive user interface for assessing and modifying palettes of colors produced on such systems (column 1, lines 5-9) of BERETTA to modify the method of standardizing colors from a color code 34, over a network distribution system providing consumers with the means to choose or select desired colored products using a standardized color code 34 processing of TURPIN et al (please see sections 0006-0007 and figures 1-2), because the teaching of BERETTA "...provides a facility for the user to manually control how a color will be reproduced in a given device gamut, on one or more output devices column 6, lines 1-14, please note lines 12-14 and see figure 3, element 10 and figure 17). Therefore, improving the consumers ability to determine color selection. Accordingly, it would have been obvious for BERETTA to modify TURPIN et al.

13. As per claim 35, TURPIN et al meet limitations of claim 30, however, does not disclose the following feature, wherein one or more instructions causing the one or more processors to convert the component values in the standardized reference color coordinate system further causes the one or more processors to calculate a minimum average component value if one of the converted component values exceed a range of [0,1]. BERETTA discloses the means of wherein one or more instructions causing the one or more processors (figure 1, element 22 discloses at least one processor) to convert the component values in the standardized reference color coordinate system further causes the one or more processors to calculate a minimum average component value if one of the converted component values exceed a range of [0,1] (see column

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41, lines 16-33-disclosing a "min/max" clamping technique when the range of Tristimulus values are not in a range between zero (0) and one (1)). It would have been obvious to one skilled in the art at the time of the invention to utilize a color display and reproductive systems using graphical and interactive user interface for assessing and modifying palettes of colors produced on such systems (column 1, lines 5-9) of BERETTA to modify the method of standardizing colors from a color code 34, over a network distribution system providing consumers with the means to choose or select desired colored products using a standardized color code 34 processing of TURPIN et al (please see sections 0006-0007 and figures 1-2), because the teaching of BERETTA "...provides a facility for the user to manually control how a color will be reproduced in a given device gamut, on one or more output devices column 6, lines 1-14, please note lines 12-14 and see figure 3, element 10 and figure 17). Therefore, improving the consumers ability to determine color selection. Accordingly, it would have been obvious for BERETTA to modify TURPIN et al.

14. As per claim 36, TURPIN et al meet limitations of claim 30, however, does not expressly teach, wherein the one or more instructions causing the one or more processors (figure 1, element 22 discloses one processor) to convert the component values in the standardized reference color coordinate system further causes the one or more processors to default to a next-closest color component value match if one of the converted component values exceed a range of [0,1]. BERETTA discloses wherein the one or more instructions causing the one or more processors to convert the component values in the standardized reference color coordinate system further causes the one or

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more processors to default to a next-closest color component value match if one of the converted component values exceed a range of [0,1] (see column 41, lines 16-33 disclosing a "min/max" clamping technique when the range of Tristimulus values are not in a range between zero (0) and one (1))

It would have been obvious to one skilled in the art at the time of the invention to utilize a color display and reproductive systems using graphical and interactive user interface for assessing and modifying palettes of colors produced on such systems (column 1, lines 5-9) of BERETTA to modify the method of standardizing colors from a color code 34, over a network distribution system providing consumers with the means to choose or select desired colored products using a standardized color code 34 processing of TURPIN et al (please see sections 0006-0007 and figures 1-2), because the teaching of BERETTA "...provides a facility for the user to manually control how a color will be reproduced in a given device gamut, on one or more output devices column 6, lines 1-14, please note lines 12-14 and see figure 3, element 10 and figure 17). Therefore, improving the consumers ability to determine color selection. Accordingly, it would have been obvious for BERETTA to modify TURPIN et al.

15. 37. A computer-accessible medium according to Claim 36, wherein the next-closest color component value match is determined in accordance with a mathematical projection, BERETTA discloses wherein the next-closest color component value match is determined in accordance with a

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mathematical projection (see column 24, lines 37-47 wherein mathematical transformations/projections falls under the context of the GUI color editing, modifying and displaying of colors).

It would have been obvious to one skilled in the art at the time of the invention to utilize a color display and reproductive systems using graphical and interactive user interface for assessing and modifying palettes of colors produced on such systems (column 1, lines 5-9) of BERETTA to modify the method of standardizing colors from a color code 34, over a network distribution system providing consumers with the means to choose or select desired colored products using a standardized color code 34 processing of TURPIN et al (please see sections 0006-0007 and figures 1-2), because the teaching of BERETTA "...provides a facility for the user to manually control how a color will be reproduced in a given device gamut, on one or more output devices column 6, lines 1-14, please note lines 12-14 and see figure 3, element 10 and figure 17). Therefore, improving the consumers ability to determine color selection. Accordingly, it would have been obvious for BERETTA to modify TURPIN et al.

16. As per claim 38, TURPIN et al meet limitations of claim 30, however, does not disclose the following features, further comprising one or more instructions causing the one or more processors (figure 1, element 22 discloses at least one set of instructions and at least one processor) to indicate that the detected color is invalid and request another color be selected from the GUI color palette if one of the converted component values exceed a range of [0,1]. BERETTA discloses the following features further comprising one or more instructions

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causing the one or more processors to indicate that the detected color is invalid and request another color be selected from the GUI color palette if one of the converted component values exceed a range of [0,1] (see column 41, lines 16-33 disclosing a "min/max" clamping technique when the range of Tristimulus values are not in a range between zero (0) and one (1)).

It would have been obvious to one skilled in the art at the time of the invention to utilize a color display and reproductive systems using graphical and interactive user interface for assessing and modifying palettes of colors produced on such systems (column 1, lines 5-9) of BERETTA to modify the method of standardizing colors from a color code 34, over a network distribution system providing consumers with the means to choose or select desired colored products using a standardized color code 34 processing of TURPIN et al (please see sections 0006-0007 and figures 1-2), because the teaching of BERETTA "...provides a facility for the user to manually control how a color will be reproduced in a given device gamut, on one or more output devices column 6, lines 1-14, please note lines 12-14 and see figure 3, element 10 and figure 17). Therefore, improving the consumers ability to determine color selection. Accordingly, it would have been obvious for BERETTA to modify TURPIN et al.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. EVANS et al, US Patent Application Publication, Pub. No. 2005/0024384 discloses color matching between color spaces (figure 13 and section

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0190) and US Patent Application Publication, Pub. No. US 2004/0051888 discloses a color space platform (figure 2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J BLACKMAN whose telephone number is 571-272-7779. The examiner can normally be reached on FLEX SCHEDULE.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ANTHONY J BLACKMAN
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